US ERA ARCHIVE DOCUMENT

Washingto	on State Department of E	cology - Industrial Footprint Project					
Simpson F	ootprint Worksheet - Enviro	onmental Domain					
T.J4:6:	A	To Allerdani	VI	2007	2007 6	4	T
<u>Identifier</u>	Aspect	<u>Indicator</u>	<u>Units of measurement</u>	2006	<u>2007 Irac</u>	ctional change	Type of scoring Base yea
ENV1	Air Quality	Polycyclic Aromatic Hydrocarbon (PAH) emissions	Pounds per air dried ton of production per pollutant	0.0002151	0.000213682	-0.006589196	
							Base yea
ENV2	Air Quality	Formaldehyde emissions	Pounds per air dried ton of production	0.031334859	0.029970274	-0.043548453	
ENV3	Air Quality	Chloroform emissions	Pounds per air dried ton of production	0.00163	0.00164	0.006134969	Base yea
EIN V 3	Air Quality	Chlorotonii emissions	Pounds per air dried ton of production	0.00163	0.00104	0.000134909	Base yea
ENV4	Air Quality	NOx emissions	Pounds per air dried ton of production	0.0015889	0.001489	-0.062873686	•
							Base yea
ENV5	Air Quality	SOx emissions	Pounds per air dried ton of production	0.0010756	0.0014575	0.355057642	
ENULC	A. O. 1.	Posti celata mattar (DM) amini an	December of the date of the day in				Base yea
ENV6	Air Quality	Particulate matter (PM) emissions	Pounds per air dried ton of production			0	Base yea
ENV7	Air Quality	Carbon dioxide emissions	Pounds per air dried ton of production	0.944014334	0.925270453	-0.019855504	
ENV8	Air Quality	Total emissions compared to permit limit	Ratio of emissions to permit limit	0.38427	0.39418	0.025789159	
		Total greenhouse gas emissions in carbon dioxide	Metric tons carbon equivalents per air dried ton of				Base yea
ENV9	Air Quality	equivalent units	production	0.377783954	0.345062956	-0.086612989	
ENV10	Air Quality	Total reduced sulfur (TRS) emissions	Pounds per air dried ton of production			0	Base yea
ENVIU	All Quality	Total reduced sulful (TK3) emissions	rounds per air dried ton of production				Base yea
ENV11	Air Quality	Methylethylketone (MEK) emissions	Pounds per air dried ton of production	0.0116	0.0119	0.025862069	· ·
							Base yea
ENV12	Air Quality	Lead emissions	Pounds per air dried ton of production	0.001128953	0.000181051	-0.839629181	
ENW12	Air Quality	Moroury amissions	Pounds per air dried ton of production	2 77062E 06	2 72692E 06	0.015207765	Base yea
ENV13	Air Quality	Mercury emissions	Pounds per air dried ton of production	2.77962E-06	2.73682E-06	-0.015397765	Base yea
ENV14	Air Quality	Acetaldehyde emissions	Pounds per air dried ton of production	0.06706793	0.058698453	-0.124791038	•
		·					Base yea
ENV15	Air Quality	Propionaldehyde emissions	Pounds per air dried ton of production	0.0148	0.0147	-0.006756757	
ENIVIC	A. O. 1.	Hadrochloric said enriceione	Down do man aire daire detare of muse desetions	0.662411662	0.070710016	0.224545454	Base yea
ENV16	Air Quality	Hydrochloric acid emissions	Pounds per air dried ton of production	0.663411662	0.878718916	0.324545477	Base yea
ENV17	Air Quality	Barium emissions	Pounds per air dried ton of production	0.00019885	0.000193683	-0.025984886	
			1				Base yea
ENV18	Air Quality	Manganese emissions	Pounds per air dried ton of production	0.000369903	0.000448417	0.212255931	
ENHALO			Consumption in megajoules minus sales in	5014505000	5510051000	0.000,000	Base yea
ENV19	Energy Consumption	Net consumption of purchased electricity and fuel	megajoules Megajoules from cogeneration per air dried ton of	5014695000	5510051000	0.098780883	Base yea
ENV20	Energy Consumption	Energy used/sold from cogeneration	production	0	0	0) base yea
			Gigajoules consumed from all sources per air dried				Targe
ENV21	Energy Consumption	Intensity of energy used per unit production	ton of production	28740	28700	-0.001391788	_

			Raio of megajoules from renewable sources to total				Target
ENV22	Energy Consumption	Percent of energy use from renewable sources	megajoules consumed	85.8	87.9	0.024475524	
							Assigned
ENV23	Environmental Management	Index of EMS levels	0, 1, or 2			0	
			Ratio of tons of raw material inputs from recycled				Target
		Percent of raw materials input from recycled/reused	and/or re-used sources to tons of raw material inputs				
ENV24	Raw Materials	sources	total	20.61176552	20.65413113	0.002055409	
1			Ratio of tons of raw fiber and biomass energy				Target
		Percent raw fiber and biomass energy materials from					
ENV25	Raw Materials	FSC/SFI certified sources	raw fiber and biomass energy materials total	56.13368802	53.19336125	-0.052380787	
							Base year
ENV26	Raw Materials	Average percent of recycled fiber content in products	Weighted average of recycled content in products	35.57630609	36.67423981	0.030861375	
			Tons of raw materials minus tons of raw materials				Target
			that are recycled or re-used per air dried ton of				
ENV27	Raw Materials	Raw material intensity	production	1.548195493	1.521597608	-0.017179927	
ENV28	Regulatory Compliance	Percent of monitoring period in compliance	Percent	100	100	0	Target
ENV29	Regulatory Compliance	Percent of time below permit limits	Percent	98.9	96.1	-0.028311426	Target
			Ratio of tons of waste recycled, re-used, or				Base year
ENV30	Waste Disposal	Percent recycled, composted or re-used	composted on or off site to total tons of waste	96.6	92.9	-0.038302277	
		-	_				Base year
			Ratio of tons of waste sent to landfill to total tons of				•
ENV31	Waste Disposal	Percent landfilled to total tons	waste generated	3.4	7.1	1.088235294	
	1		Cubic feet of water used from non-recycled sources,				Base year
ENV32	Water Intensity	Net water consumption	less total outflow	0	0	0	Ĵ
		1	Cubic meters of raw water intake per air dried ton of				Target
ENV33	Water Intensity	Raw water intake per unit production	production	1364	1454	0.065982405	
211100	, , aver 111011320y	Temperature difference between incoming and		1001	1.0.	0.0000,02.00	Base year
ENV34	Water Intensity	outgoing water	MMBTU/day	41	41	0	zuse jeur
Ervsi	, the mentions of	outgoing mater					Base year
			Annual average pounds per air dried unit of				Buse year
ENV35	Water Quality	Discharged BOD as percent of permit limit	production	0.0104552	0.0087329	-0.164731426	
LIVVSS	water Quarty	Discharged Bob as percent of permit mint	production	0.0104332	0.0007327	-0.104731420	Base year
		Total Suspended Solids (TSS) discharged as percent	Annual average pounds per air dried unit of				Dasc year
ENV36	Water Quality	of permit limit	production	0.0157032	0.0152132	-0.031203831	
ENVSO	water Quarity	or permit mint	production	0.0137032	0.0132132	-0.031203631	Paga yaar
			Appual avarage pounds per sin dried unit of				Base year
ENNIOT	Water Orality	Adaarhahly Organia Halida (AOV) autaut	Annual average pounds per air dried unit of	0.000010	0.000001	0.12102665	
ENV37	Water Quality	Adsorbably Organic Halide (AOX) output	production	0.0008019	0.0006961	-0.13193665	m ·
ENIMAGO	D. I	Percent of undeveloped acres of facility owned land	Davis of any said and a state of	10	10		Target
ENV38	Biodiveristy Conservation	protected as habitat	Ratio of protected acres to total acres	12	12	0	

Target or permit limit	Type of target	Raw score	Indicators	Equal weight factor	Equal weight score	Assigned weight	Weighted indicators	Assigned weight factor
	Minimize	0.658919637	1	0.026315789	0.01733999		2	0.023255814
	Minimize	4.354845333	1	0.026315789	0.114601193		2	0.023255814
	Minimize	0	1	0.026315789	0		2	1 0.023255814
	Minimize	6.28736862	1	0.026315789	0.165457069		2	1 0.023255814
	Minimize	0	1	0.026315789	0		2	0.023255814
	Minimize	0	1	0.026315789	0		2	1 0.023255814
	Minimize	1.985550432	1	0.026315789	0.052251327		2	0.023255814
	Minimize	0	1	0.026315789	0	-	3	2 0.046511628
	Minimize	8.661298906	1	0.026315789	0.227928919	,	3	2 0.046511628
	Minimize	0	1	0.026315789	0	2	2	0.023255814
	Minimize	0	1	0.026315789	0	Ž	2	0.023255814
	Minimize	83.96291814	1	0.026315789	2.209550477		2	0.023255814
	Minimize	1.539776507	1	0.026315789	0.040520434		2	0.023255814
	Minimize	12.47910379	1	0.026315789	0.328397468	2	2	0.023255814
	Minimize	0.675675676	1	0.026315789	0.017780939	2	2	0.023255814
	Minimize	0	1	0.026315789	0	:	2	0.023255814
	Minimize	2.598488588	1	0.026315789	0.068381279	:	2	0.023255814
	Minimize	0	1	0.026315789	0	2	2	0.023255814
	Minimize	0	1	0.026315789	0	2	2	0.023255814
	Maximize	0	1	0.026315789	0		2	0.023255814
12	2.16 Minimize	0.042369338	1	0.026315789	0.001114983		3	0.046511628

100								
100	Maximize	87.9	1	0.026315789	2 212157905	3	2	0.046511628
100		87.9	1	0.020313789	2.313157895	3	2	0.040311028
100	Maximize	0	1	0.026315789	0	1	0.5	0.011627907
100			1	0.02031270			0.0	0.011027707
	Maximize	20.65413113	1	0.026315789	0.543529766	2	1	0.023255814
100								
	Maximize	53.19336125	1	0.026315789	1.399825296	2	1	0.023255814
	N	100	1	0.026215700	2 (21570047		1	0.002055014
0.5	Maximize	100	1	0.026315789	2.631578947	2	1	0.023255814
0								
	Minimize	32.86019888	1	0.026315789	0.864742076	1	0.5	0.011627907
100) Maximize	100	1	0.026315789	2.631578947	3	2	0.046511628
100) Maximize	96.1	1	0.026315789	2.528947368	2	1	0.023255814
	Maximize	100	1	0.026315789	2.631578947	2	1	0.023255814
(
	N		1	0.026215700		2		0.046511600
	Minimize	0	1	0.026315789	0	3	2	0.046511628
	Minimize	0	1	0.026315789	0	3	2	0.046511628
15			1	0.020313707		3	2	0.040311020
	Minimize	1.031636864	1	0.026315789	0.027148339	1	0.5	0.011627907
	Minimize	0	1	0.026315789	0	2	1	0.023255814
	Minimize	16.47314255	1	0.026315789	0.433503751	2	1	0.023255814
	Minimize	3.120383107	1	0.026315789	0.082115345	2	1	0.023255814
	171111111112C	3.120303107	1	0.020313707	0.002113343		1	0.023233014
	Minimize	13.19366505	1	0.026315789	0.347201712	2	1	0.023255814
100								
	Maximize	12	1	0.026315789	0.315789474	1	0.5	0.011627907
		Sum:	38	Sum:	19.99402194	Sum:	43	Sum:

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Final weighted score	Comments
	Assuming this is not a permited pollutant so no target is
0.015323712	currently available.
	Assuming this is not a permited pollutant so no target is
0.101275473	currently available.
	Assuming this is not a permited pollutant so no target is
0	currently available.
	Using base year for now. Need to convert permit limit into a
0.146217875	target per ton of production.
	Using base year for now. Need to convert permit limit into a
0	target per ton of production.
	Using base year for now. Need to convert permit limit into a
0	target per ton of production.
	Using base year for now. Need to convert permit limit into a
0.046175591	target per ton of production.
	Using base year for now.
	Need to develop target based on percent reduction from base
0.402851112	
	Using base year for now. Need to convert permit limit into a
0	target per ton of production.
	Assuming this is not a permited pollutant so no target is
0	currently available.
	Assuming this is not a permited pollutant so no target is
1.952626003	currently available.
	Assuming this is not a permited pollutant so no target is
0.035808756	currently available.
1.322.337.00	Assuming this is not a permited pollutant so no target is
0.290211716	currently available.
3.2, 32 27, 10	Assuming this is not a permited pollutant so no target is
0.015713388	currently available.
	Assuming this is not a permited pollutant so no target is
0	currently available.
	Assuming this is not a permited pollutant so no target is
0.060429967	currently available.
	Assuming this is not a permited pollutant so no target is
0	currently available.
	Using base year for now.
0	
	Using base year for now.
0	
-	Industry best target, as determined by John Talberth.
0.001970667	,
0.001770007	

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	Assuming target is 100% for now.
4.088372093	
	Need to directly assign score based on 0, 1 or 2. For now,
0	assuming 1, 50, and 100.
	Assuming target is 100% for now.
0.480328631	
	Assuming target is 100% for now.
1.237054913	
	Using base year for now. Need to reasearch target.
2.325581395	
	Industry best target, as determined by John Talberth.
0.382095336	
	Assuming target is 100% for now.
2.234883721	should drop time above limits, focus on time below.
	Using base year for now. But hard to score due to
2.325581395	interaction between ENV 30, 32, and 33.
	Base year used for now. 0 is the most desireable target.
	Need to devleop a scoring protocol when a target is 0.
0	
	Modify scoring so negative = 100. Otherwise, base year.
0	
	Industry best target, as determined by John Talberth.
0.011995777	
	Using base year for now.
0	
	Using base year for now. 0% equals a score of 100, 100% =
	a score of 0. Need to convert permit limit into a target per
0.383096338	ton of production.
	Using base year for now. 0% equals a score of 100, 100% =
	a score of 0. Need to convert permit limit into a target per
0.072567049	ton of production.
	Using base year for now. 0% equals a score of 100, 100% =
	a score of 0. Need to convert permit limit into a target per
0.30682942	ton of production.
	Assuming 100% for now. Need to develop target.
0.139534884	
21.707688	

Washingto	on State Department of Eco	logy - Industrial Footprint Project						
Simpson F	ootprint Worksheet - Social I	Domain						
Identifier	Agnest	Indicator	Units of measurement	2006	2007	functional change	Type of goowing	Target or permit limit
SOC1	Aspect Community Involvement	Volunteerism for local education	Hours per employee	<u> 2000</u>	2007	<u> </u>	Base year	
SOC2	Community Involvement	Volunteerism for community benefit	Hours per employee	2	1.5	-0.25	· · · · · ·	
SOC3	· ·	Number of social awards	Number	0	1.5	-0.23	*	
SOC3 SOC4	Community Involvement Environmental Nuisance		Number	2	1	-0.5	Assigned	
<u>30C4</u>	Environmental Nuisance	Number of odor complaints			1	-0.5	Assigned	1
COCE	Environmental National	Intensity of expectional traffic	Truck vehicles miles traveled per air dried ton of	20.4502	22 10650	0.000515157	, Daga	
SOC5	Environmental Nuisance	Intensity of operational traffic	production	20.4595	22.10659	0.080515157	Base year	[
2026	XX 1.1 1.6 6	OGYLL G. II	1 for confirmed compliance without any fines, 0					1
SOC6	Health and Safety	OSHA Compliance	otherwise			0	Assigned	1
SOC7	Health and Safety	Safety incidents, injuries, accidents	Incidents per 100 employees	42	60	0.428571429	Base year	r
SOC8	Health and Safety	Wellness programs and benefits	Dollars per employee	0	0	0	Base year	
2000		Weiniess programs and concins	- same per sarpesyst					
SOC9	Health and Safety	Trained incident responders	Number per 100 employees	0	26	0	Base year	r
SOC10	Health and Safety	Emergency and safety planning	1 for plan on file, 0 otherwise	1	1	0	Assigned	1
SOC11 SOC12	Human Rights Employee Relations	Demographic diversity Benefits for family leave	Index of representational equity from IRE calculation below (beginning in cell D28), scored on a scale of 0 to 1, where 0 = perfect match with US diversity 1 for all classes of benefits provide, 0 otherwise		0.167014	-0.069186962 0	Base year Assigned	
SOC13	Employee Relations	Workplace satisfaction	1 if employee satisfaction survey is used, 0 if otherwise	0	0	0	Assigned	1
			Ratio of highest paid employee to lowest paid	• • •	2.05			
SOC14	Employee Relations	Wage distribution gap	employee	2.97	2.97	0	Base year	
SOC15	Employee Relations	Labor representation	Percent			0	Targe	t 10
SOC16	Employee Relations	Workforce turnover rate	Ratio of total number of employees resigning, fired, or laid off to average workforce		5.87	0	Base year	r
SOC17	Employee Relations	Employee training	Total training hours per employee	60	65	0.083333333	-	
SOC18	Employee Relations	Benefits beyond compliance	Dollars per employee		I	0	Base year	
SOC19	Employee Relations	Labor relation incidents	Incidents per 100 employees	12	17	0.416666667	Base year	r
			IRE Calculation (SOC11)	2006	2007	U.S. shares	Mill shares 06	Mill shares 07
			White Non-Hispanic	351	354	0.664		
			Black	9	9	0.128		
			Asian	8	10	0.044		
			Native American	10	11	0.044		
			Hispanic	45				

	Pacific Islander	0	0	0.002	0	0
	Other	0	0	0.004	0	0
	Sum	423	434			Sum
						Sum/2=IRE

	Raw score In	<u>idicators</u>	Equal weight factor		Assigned weight	Weighted indicators	Assigned weight factor	Final weighted score	Comments
Maximize	0	1	0.052631579		2	1	0.054054054	0	
Maximize	100	1	0.052631579		2	1	0.054054054	5.405405405	
Maximize	0	1	0.052631579		1	0.5		0	
Minimize	50	1	0.052631579	2.631578947	3	2	0.108108108	5.405405405	
Minimize	0	1	0.052631579	0	1	0.5	0.027027027	0	
Maximize	0	1	0.052631579	0	3	2	0.108108108	0	
									Need to develop long term target, perhaps from industry best
Minimize	0	1	0.052631579		3		0.108108108	0	reported in sustainability plans.
Maximize	0	1	0.052631579	0	1	0.5	0.027027027	0	
									Need to develop long term target. Does not make sense to
Maximize	0	1	0.052631579		2	1	0.054054054	_	base score on continual increases.
Maximize	100	1	0.052631579	5.263157895	2	1	0.054054054	5.405405405	
									IRE calculation below. Assumes racial/ethnic omposition
									similar to that of the U.S.A Perhaps county level
									distribution would be a better target. Base year used for
									now. 0 is the most desireable target. Need to devleop a
Minimize	6.9186962	1	0.052631579	0.364141907	2		0.054054054	0.373983581	scoring protocol when a target is 0.
Maximize	100	1	0.052631579	5.263157895	1	0.5	0.027027027	2.702702703	
Maximize	0	1	0.052631579	0	2	1	0.054054054	0	
Minimize	0	1	0.052631579		1	0.5	0.027027027		Need to develop long term target.
Maximize	0	1	0.052631579	0	2	1	0.054054054	0	Assumes target is 100% for now.
Minimize	0	1	0.052631579	0	2	1	0.054054054		Need to develop long term target.
									Need target for this from American Society of Training and
Maximize	100	1	0.052631579		2	1	0.054054054		Development.
Maximize	0	1	0.052631579	0	1	0.5	0.027027027		Need to develop long term target.
Minimize	0	1	0.052631579		1	0.5	0.027027027		Need to develop long term target.
	Sum:	19	Sum:	24.04835243	Sum:	18.5	Sum:	24.6983079	
Abs(x-y) 06	Abs(x-y) 07								
	0.1516682								
0.106723404	0.1072627								
	0.0209585								
	0.0153456								
0.041617021	0.0327926								

0.002	0.002				
0.004	0.004				
0.358855792	0.3340276				
0.179427896	0.1670138				

Simpson F	Gootprint Worksheet - Econor	nic Domain					
T	· · · · · · · · · · · · · · · · · · ·						
Identifier	Aspect	Indicator	Units of measurement	2006	2007	fractional change	Type of scoring
ECON1	Economic Impact	Regional economic impact - income	Million dollars per air dried ton of production	100.931	105.206	0.042355669	Base year
ECON2	Economic Impact	Regional economic impact - tax revenue	Million dollars per air dried ton of production	7.4	7.75	0.047297297	Base year
ECON3	Economic Impact	Regional economic impact - jobs	Number per air dried ton of production	1847	1892	0.024363833	Base year
ECON4	Regional Economy	Percent of revenue regionally (goods)	Percent	21.4	17.9	-0.163551402	Base year
ECON5	Regional Economy	Percent of purchases procured regionally (services, including utilities)	Percent	14.4	14.2	-0.013888889	Base year
ECON6	Economic Impact	Net capital investment in facility	Ratio of capital investment (spread over years) to depreciation, replacement and maintenance	0.17	0.15	-0.117647059	Target
ECON7	Community Involvement	Total spending on habitat conservation/restoration	Dollars	0	0	0	Base year
ECON8	Community Involvement	Contributions to charities and non-profit organizations	Dollars	119325	101014	-0.15345485	Base year
ECON9	Community Involvement	Contributions to local education	Dollars	11217	11171	-0.004100918	Base year
ECON10	Economic Development	Reycled/reused market creation	Dollars	21360313	2954917	-0.861663216	Base year
ECON11	Jobs	Average compensation including benefits	Dollars	98000	99000	0.010204082	
ECON12	Jobs	Percent of total jobs at family wage level	Percent	100	100	0	Target
ECON13	Jobs	Percent of total jobs providing benefits	Percent	100	100	0	Target
ECON14	Customer Satisfaction	Claims paid including returns	Value of claims paid per million dollars in sales	0.4	0.2	-0.5	Base year

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Target or permit limit	Type of target	Raw score	Indicators	Equal weight factor	Equal weight score	Assigned weight	Weighted indicators	Assigned weight factor
	Maximize		1	0.071428571	7.142857143	3	2	0.090909091
	Maximize	100	1	0.071428571	7.142857143	3	2	0.090909091
	Maximize	100	1	0.071428571	7.142857143	3	2	0.090909091
	Maximize	100	1	0.071428571	7.142857143	3	2	0.090909091
	Maximize	100	1	0.071428571	7.142857143	3	2	0.090909091
Greater than one	Maximize		1	0.071428571	0	2	1	0.045454545
	Maximize	0	1	0.071428571	0	2	1	0.045454545
	Maximize	100	1	0.071428571	7.142857143	2	1	0.045454545
	Maximize	100	1	0.071428571	7.142857143	2	1	0.045454545
	Maximize		1	0.071428571			1	0.045454545
	Maximize		1	0.071428571			2	0.090909091
100	Maximize		1	0.071428571			2	0.090909091
100	Maximize		1	0.071428571			2	0.090909091
0	Minimize			0.071428571		2	1	0.045454545
		Sum:	14	Sum:	82.14285714	Sum:	22	Sum:

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Final weighted score	Comments			
9.090909091				
9.090909091				
9.090909091				
9.090909091				
9.090909091				
0	Recommend simple scoring here: negative = 0, positive = 5	50, incrase fro	m base year	r = 100.
0				
4.545454545				
4.545454545				
4.545454545				
9.090909091				
9.090909091	Assuming target is 100%			
9.090909091	Assuming target is 100%			
2.272727273	Base year used for now. 0 is the most desireable target.			
88.63636364				